

CoraLite® Plus 647-conjugated Phospho-MST1 (Thr183)/MST2 (Thr180) Recombinant antibody

Catalog Number: **CL647-80093**

Basic Information

Catalog Number: CL647-80093	GenBank Accession Number: BC005231	Purification Method: Protein A purification
Size: 1000 µg/ml	GeneID (NCBI): 6789	CloneNo.: 1P6
Source: Rabbit	UNIPROT ID: Q13043	Excitation/Emission maxima wavelengths: 654 nm / 674 nm
Isotype: IgG	Full Name: serine/threonine kinase 4	
	Calculated MW: 56 kDa	
	Observed MW: 59 kDa	

Applications

Tested Applications:
FC (Intra)

Species Specificity:
Human

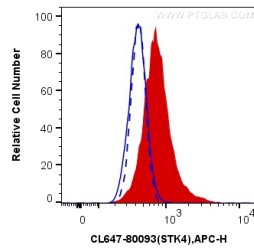
Background Information

Mammalian STE20-like serine-threonine kinase MST1, encoded by the STK4 gene, is a multifunctional protein. MST1 and its closest paralogs MST2 (encoded by the STK3 gene), MST3, and MST4 are members of the Class II Germinal Center Family of Protein Kinases. STK3/4 and LATS1/2 (large tumor suppressor 1 and 2) are core kinase components of the Hippo tumor suppressor pathway in mammals. In the conventional Hippo pathway, the STK3/4 and LATS1/2 signaling cascade phosphorylates and inactivates the transcriptional coactivator YAP1 (yes associated protein 1) and its close paralog WWTR1. YAP1 and WWTR1 do not have DNA binding domains and they exert their biological outputs, such as cell proliferation and survival, by interacting with the TEAD1-4 transcription factors. Lines of evidence have indicated that dysregulation or loss of STK4/Hippo signaling is linked to developmental disorders and carcinogenesis with poor prognosis. STK4 is a stress-induced kinase and it can be activated in response to cell-death inducers. Autophosphorylation of STK4 at Thr183 (Thr180 in STK3) in the activation loop is a key activation mechanism for STK4/3 because phosphorylation of Thr183/180 causes the cleavage of STK4 by caspases under apoptotic conditions. The caspase-cleavage results in a more active STK4 protein (STK4-N, an amino-terminally truncated STK4), which localizes into the nucleus and induces apoptosis through histone modifications and chromatin condensations.

Storage

Storage:
Store at -20°C. Avoid exposure to light.
Storage Buffer:
PBS with 50% Glycerol, 0.05% Proclin300, 0.5% BSA, pH 7.3.
Aliquoting is unnecessary for -20°C storage

Selected Validation Data



1X10⁶ HeLa cells untreated (dashed lines) or treated with Calyculin A (red) were intracellularly stained with 0.25 ug Coralite® Plus 647 Anti-Human Phospho-MST1 (Thr183)/MST2 (Thr180) (CL647-80093, Clone:1P6), or 0.25 ug Control Antibody (blue). Cells were fixed with 4% PFA and permeabilized with 90% MeOH.